BL 13 ORDER NO. GAD8707140C2

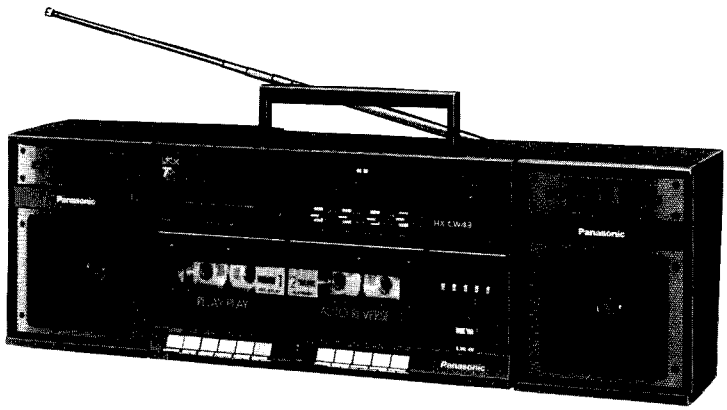
Service Manual

Radio Cassette

Portable Stereo Component System

RX-CW43L

(Black)



This is the Service Manual for the following areas.

[Z].... For all Eurpean areas except United Kingdom, F.R.Germany, France, Italy and Finland.

[ZE]....For United Kingdom.

[ZF]....For France.

[ZI]....For Itary and Finland.

[ZG]....For F.R.Germany.

RX-FW29L MECHANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement:	[Z],[ZF],[ZI],[ZG]....AC 220V,50Hz [ZE].....AC;240V,50Hz Battery;12V(Eight"D"Size Flashlight Batteries) (Panasonic UM-1 or equivalent)
Power Consumption:	30W(AC only)
Power Output:	40W(20Wx2)....PMPO 20W(10Wx2)....MPO
Speaker:	Woofer;12cm PM Dynamic speaker(3Ω) Tweeter;2x4cm Ceramic speaker(1.5kΩ)
Input:	MIX.MIC;sensitivity 5mV,200~600Ω(ø3.5) CD/LINE IN;sensitivity 300mV/50kΩover DC IN;12~13.2V
Output:	EXT SP;2.7~8Ω Headphones;32Ω(8~50Ω)ø3.5
Dimensions:	Total Size; 637(W)x199(H)x162(D)mm Main Unit; 344(W)x199(H)x162(D)mm Speaker Box; 151(W)x199(H)x133(D)mm
Weight;	5.0kg Without batteries

Radio Section;

Radio Frequency Range;

FM;87.5~108MHz
LW;148.5~285kHz(2020~1052m)
MW;520~1610kHz(577~186m)
SW;5.9~18MHz(50.8~16.7m)

Intermediate frequency;

FM;10.7MHz
AM(LW/MW/SW);
455kHz... [Z][ZF][ZI][ZG]
470kHz... [ZE]

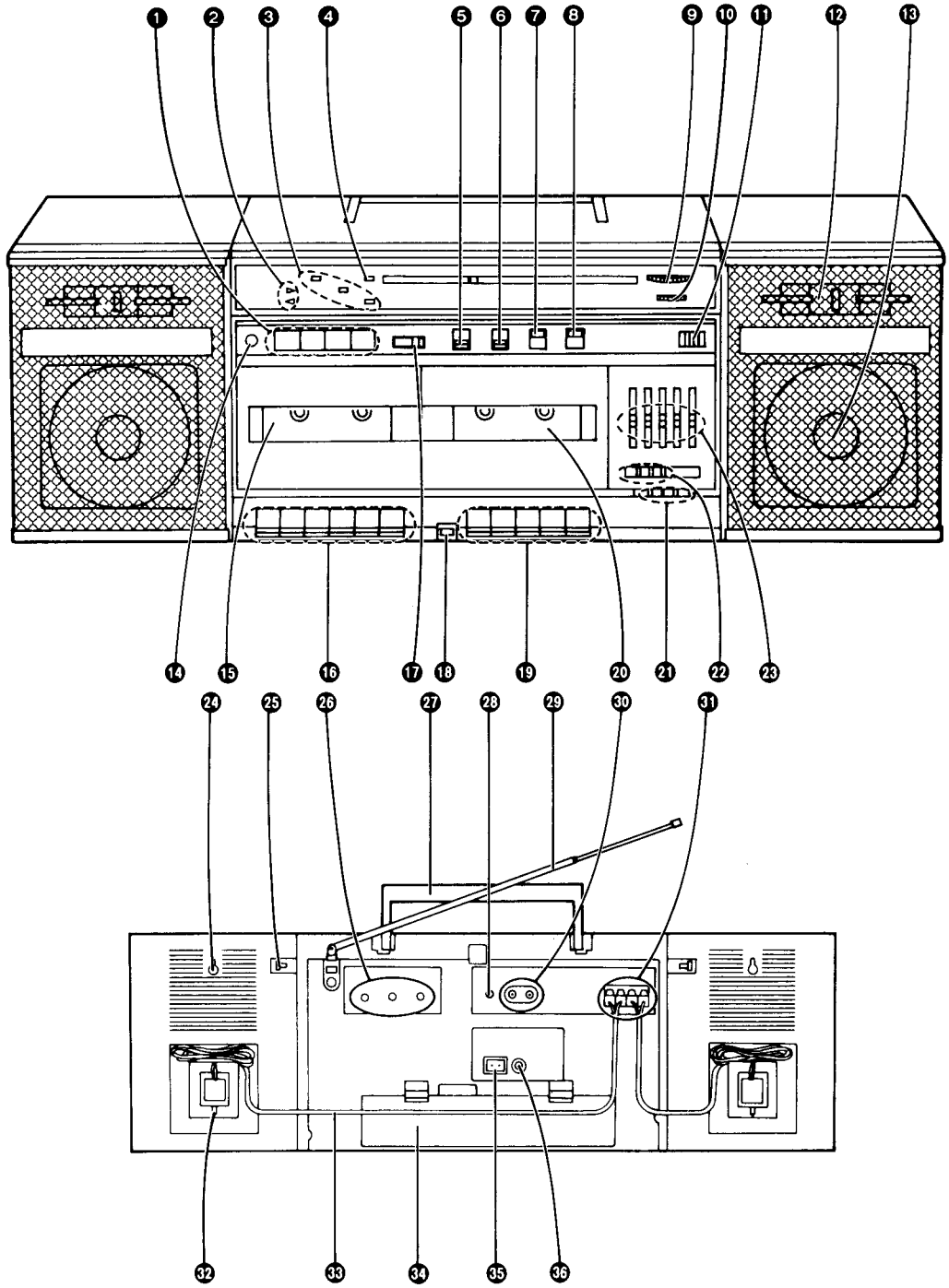
Sensitivity:	FM;4.5μV/50mW output (-3dB Limit Sens) LW;71μV/m/50mW output MW;89μV/m/50mW output SW;3.2μV/50mW output
Tape Deck Section:	**Tape 1**
Frequency Response:	70~12.000Hz(with normal tape)
Recording System:	AC bias,Magnet erase
Tape Speed:	4.8cm/s
Track System:	4-track 2-channel stereo recording and playback
Tape Deck Section	**Teap 2**
Frequency Response:	70~12.000Hz(with normal tape)
Tape Speed:	4.8cm/s
Track System:	4-track 2-channel stereo playback

Design and specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS



FOR YOUR SAFETY

WARNING:
TO PREVENT FIRE OF SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

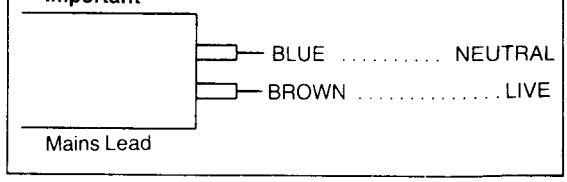
■ Do not Remove Outer Cover

To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

■ AC Mains Lead Connection (For UK)

The wires in the mains lead of this apparatus are coloured in accordance with the following code.

Important



As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

LOCATION OF CONTROLS (Refer to page 2.)

❶ FM Preset Tuning Buttons (FM PRESET TUNING)
❷ Operation/Battery Check/Direction Indicators (OPR/BATT/TAPE 2 DIR)
❸ FM Preset Tuning Indicators
❹ FM Stereo Indicator (FM ST)
❺ Function Selector (SELECTOR)
❻ Editing Mode Selector (EDITING)
❼ FM Mode Selector/Beat Proof Switch (FM MODE/B.P)
❽ Band Selector (BAND)
❾ Tuning Control (TUNING)
❿ Fine Tuning Control (FINE TUNING)
⓫ Built-in Microphone (MIC)
⓬ Speakers (Tweeter) (2×4 cm, 1,5 kΩ)
⓭ Speakers (Woofer) (12 cm, 3Ω)
⓮ Headphones Jack (PHONES) [32Ω (8~50Ω)]

When using the headphones (EAH-S12, optional), avoid listening to sound at excessive volume levels, because it may injure your ears.

Tape 1 (For Recording and Playback)

⓯ Cassette Compartment
⓰ ○ Record Button (RECORD)
› Playback Button (PLAY)
« Rewind/Review Button (REW/REV)
» Fast Forward/Cue Button (FF/CUE)
■ Stop/Eject Button (STOP/EJECT)
II Pause Button (PAUSE)
⓱ Tape Counter (TAPE 1 COUNTER)

Tape 2 (For Auto-Reverse Playback)

⓲ Reverse Mode Selector (REVERSE MODE)
⓳ ◇ Playback Button (PLAY)
« » Fast/Cue Buttons (FAST/CUE)
■ Stop/Eject Button (STOP/EJECT)
◀▶ Direction Button (DIRECTION)
⓴ Cassette Compartment

㉑ Balance Control (BALANCE)
㉒ Volume Control (VOLUME)
㉓ Graphic Equalizer Controls (GRAPHIC EQUALIZER)

㉔ Speaker Wall Mounts
㉕ Speaker Release Levers (RELEASE)
㉖ FM Preset Tuning Controls (FM PRESET TUNING)
㉗ Handle
㉘ Mixing Microphone Jack (MIXING MIC) (5 mV, 200~600Ω)
㉙ Telescopic Antenna
㉚ CD/Line Input Jacks (CD/LINE IN) (300 mV, 50 kΩ)
㉛ Speaker Terminals (SPEAKER IMP 2.7–8Ω)
㉜ Speaker Cable Compartments
㉝ Speaker Cables
㉞ Battery Compartment
㉟ AC Socket (AC IN~)
㊱ DC Input Jack (DC IN 12–13.2 V)

DISASSEMBLY INSTRUCTIONS

Fig. 1

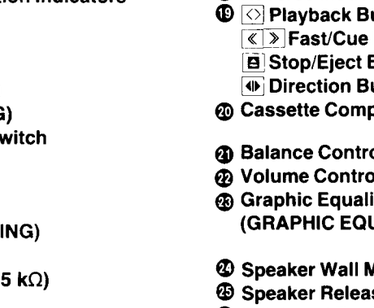


Fig. 2

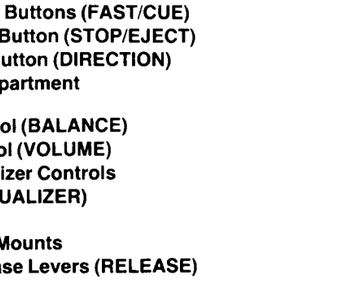


Fig. 3

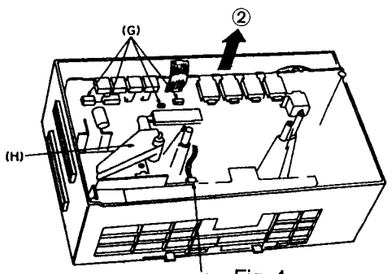


Fig. 4

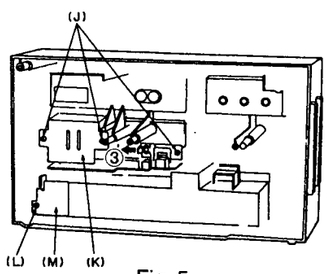


Fig. 5

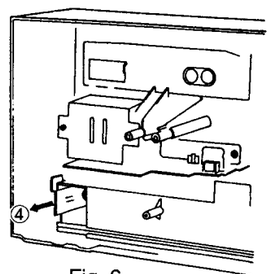


Fig. 6

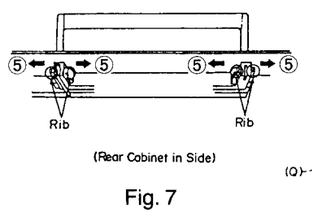


Fig. 7

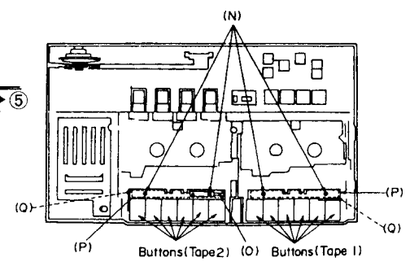


Fig. 8

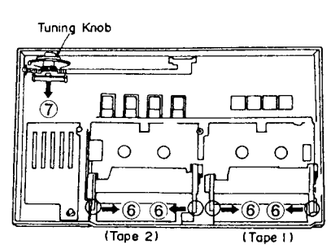


Fig. 9

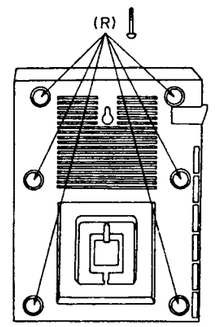


Fig. 10

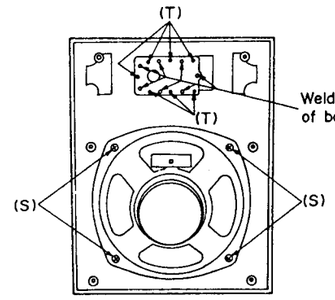


Fig. 11

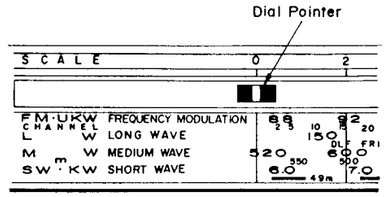


Fig. 12

■ MAIN UNIT SECTION

Steps	Shown in Fig. –.	To remove –.	Remove –.
1	1	Front Cabinet Ass'y	Screw (3×40) mm ..... (A)×5
2	2		Knob ..... (B)×7
3			Push the Stop/Eject button (Tape 1, Tape 2)
4	3	LED Circuit Board	Remove the LED circuit board in the direction of arrow ①.
5	3	Graphic EQ Circuit Board	Screw (3×12) mm ..... (C)×2
6	3	Mechanism Unit (Tape 1 & Tape 2)	Tape counter & Angle ..... (D)×1
7			Counter belt ..... (E)×1
8			Screw (3×12) mm ..... (F)×4
9	4		Socket (CP1, CP2, CP3, CP4) ..... (G)×4
10	4	Main Circuit Board	Record/Playback Lever ..... (H)×1
11			Socket (CP5) ..... (I)×1
12			Remove the main circuit board in the direction of arrow ②.
13	5	Power Supply Circuit Board	Screw (3×12) mm ..... (J)×3
14			Shield plate ..... (K)×1
15			Push the rib in the direction of arrow ③.
16	5	Battery Circuit Board	Screw (3×12) mm ..... (L)×1
17			Angle ..... (M)×1
18	6		Remove the battery circuit board in the direction of arrow ④.
19	7	Handle	Remove the rib in the direction of arrows ⑤.
20	8	Buttons (Tape 1 & Tape 2)	Screw (3×6) mm ..... (N)×4
21			Plate ..... (O)×1
22			Angle ..... (P)×2
23			Cushion ..... (Q)×2
24	9	Cassette Compartment Cover (Tape 1 & Tape 2)	Remove the cassette compartment by pulling one side at a time toward the front of the set while pushing it with a standard screwdriver in the direction of the arrows ⑥.
25	9	Tuning knob	Push the rib in the direction of arrow ⑦.

■ SPEAKER BOX SECTION

Steps	Shown in Fig. –.	To remove –.	Remove –.
26	10	Rear Cabinet Ass'y	Screw (3×20) mm ..... (R)×6
27	11	Speaker (Woofer)	Screw (3×8) mm ..... (S)×4
28	11	Tweeter Ass'y (※1)	Cut the tip of boss. ..... (T)×7

(※1) When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

■ 0 (ZERO) POINT ADJUSTMENT

1. Line up the dial point in the front cabinet assembly with the "0" point graduation as shown in Fig. 12.
2. Turn the variable capacitor gear on the main circuit board all the way in the direction of arrow ⑧. (Fig. 3)
3. Next, assemble the front and rear cabinets, and the 0 (zero) point adjustment is complete.

▼ Be sure to fold at the (▼) mark so that mark is on the outside.

Notes:
1. Imp
Cor
Wh
2. [M] I
3. The

Ref. No
INTEGRATE
IC1
IC2
IC3
IC300
IC301
IC302
IC303
TRANSISTO
Q1
Q2
Q4
Q5
Q6, Q7
Q101
Q102
Q201
Q202
Q300
Q301
Q302
Q303, Q304
Q305
Q306
Q307, Q308
DIODES
D1, D2
D3
D4
D5
D6
D9, D10
D11, D12
D13, D14
D15, D16
D17
D20, D21
D22, D23
D24, D25
D27
D28
D29
I.C. PROTEC
IP1
VARIABLE
VR2, VR3
VR4
VR5
(ZG, Z1)
VR5
(Z, ZE, ZF)
VR6
VR7
VR15, VR16
(ZG, Z1)
VR100
(Z, ZE, ZF)
VR102, VR10
VR104, VR10
VR106
VR300
VARIABLE
CT1
CT2
CT3
CT5

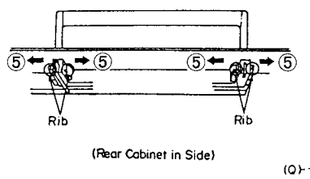


Fig. 7

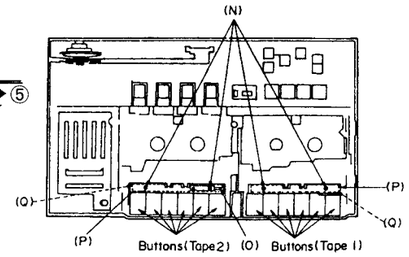
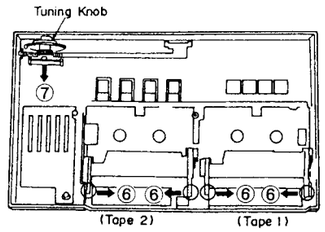


Fig. 8



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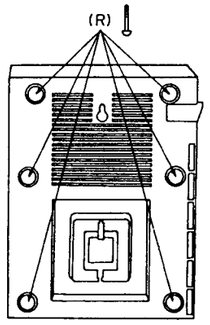

Fig. 10

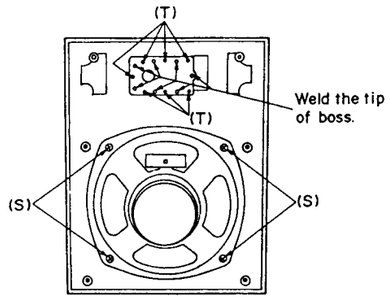

Fig. 11

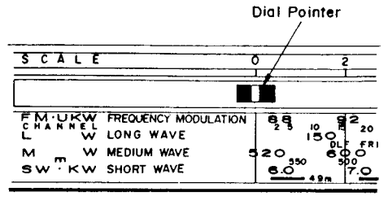

Fig. 12

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5	3	Graphic EQ Circuit Board	Screw (3×12) mm ..... (C)×2
6	3	Mechanism Unit (Tape 1 & Tape 2)	Tape counter & Angle ..... (D)×1
7			Counter belt ..... (E)×1
8			Screw (3×12) mm ..... (F)×4
9	4		Socket (CP1, CP2, CP3, CP4) ..... (G)×4
10	4	Main Circuit Board	Record/Playback Lever ..... (H)×1
11			Socket (CP5) ..... (I)×1
12			Remove the main circuit board in the direction of arrow ②.
13	5	Power Supply Circuit Board	Screw (3×12) mm ..... (J)×3
14			Shield plate ..... (K)×1
15			Push the rib in the direction of arrow ③.
16	5	Battery Circuit Board	Screw (3×12) mm ..... (L)×1
17			Angle ..... (M)×1
18	6		Remove the battery circuit board in the direction of arrow ④.
19	7	Handle	Remove the rib in the direction of arrows ⑤.
20	8	Buttons (Tape 1 & Tape 2)	Screw (3×6) mm ..... (N)×4
21			Plate ..... (O)×1
22			Angle ..... (P)×2
23			Cushion ..... (Q)×2
24	9	Cassette Compartment Cover (Tape 1 & Tape 2)	Remove the cassette compartment by pulling one side at a time toward the front of the set while pushing it with a standard screwdriver in the direction of the arrows ⑥.
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■ SPEAKER BOX SECTION

Steps	Shown in Fig. –.	To remove –.	Remove –.
26	10	Rear Cabinet Ass'y	Screw (3×20) mm ..... (R)×6
27	11	Speaker (Woofer)	Screw (3×8) mm ..... (S)×4
28	11	Tweeter Ass'y (※1)	Cut the tip of boss. ..... (T)×7

(※1) When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

■ 0 (ZERO) POINT ADJUSTMENT

1. Line up the dial point in the front cabinet assembly with the "0" point graduation as shown in Fig. 12.
2. Turn the variable capacitor gear on the main circuit board all the way in the direction of arrow ⑧. (Fig. 3)
3. Next, assemble the front and rear cabinets, and the 0 (zero) point adjustment is complete.

▼ Be sure to fold at the (▼) mark so that mark is on the outside.

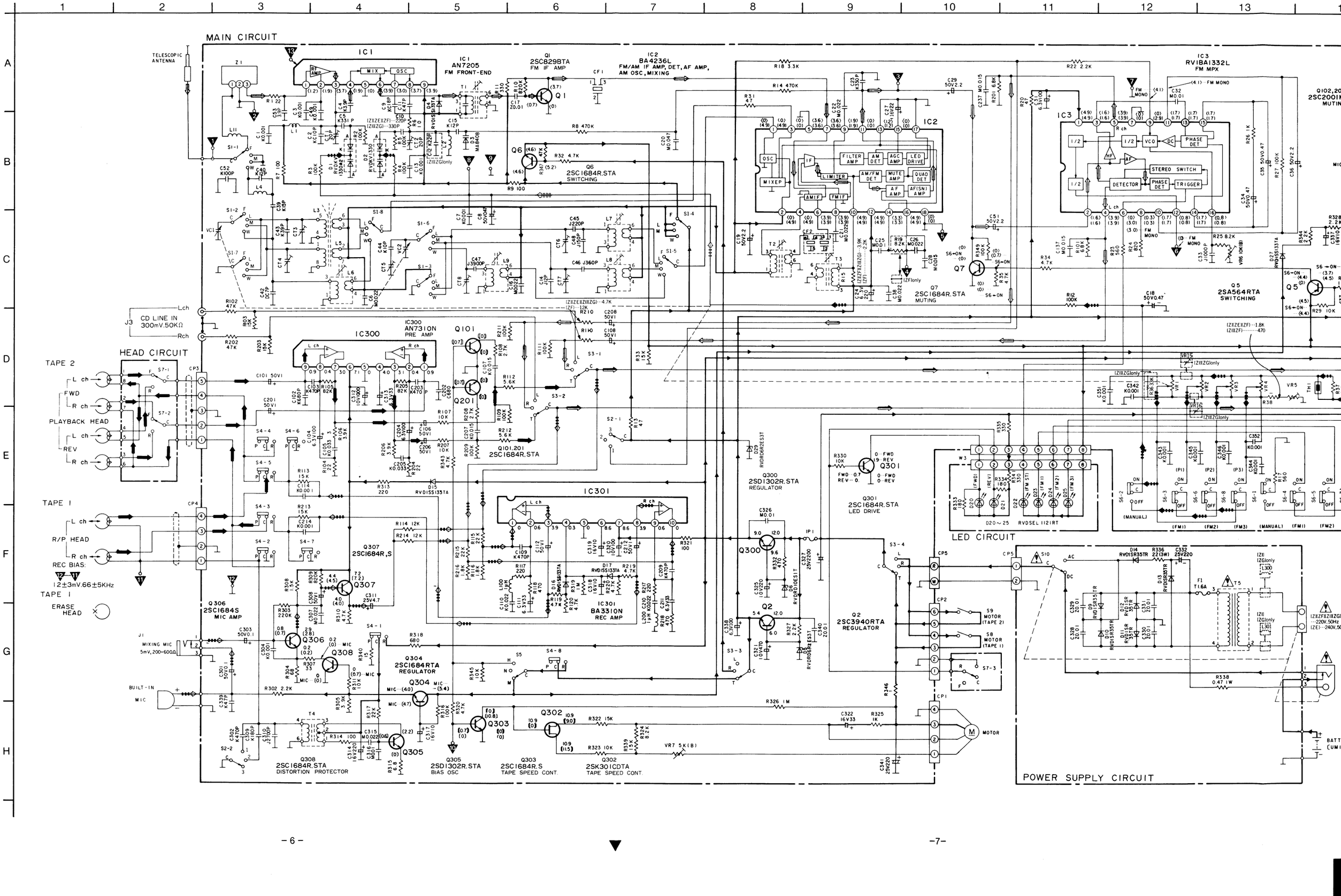
ELECTRICAL PARTS LIST

Notes:

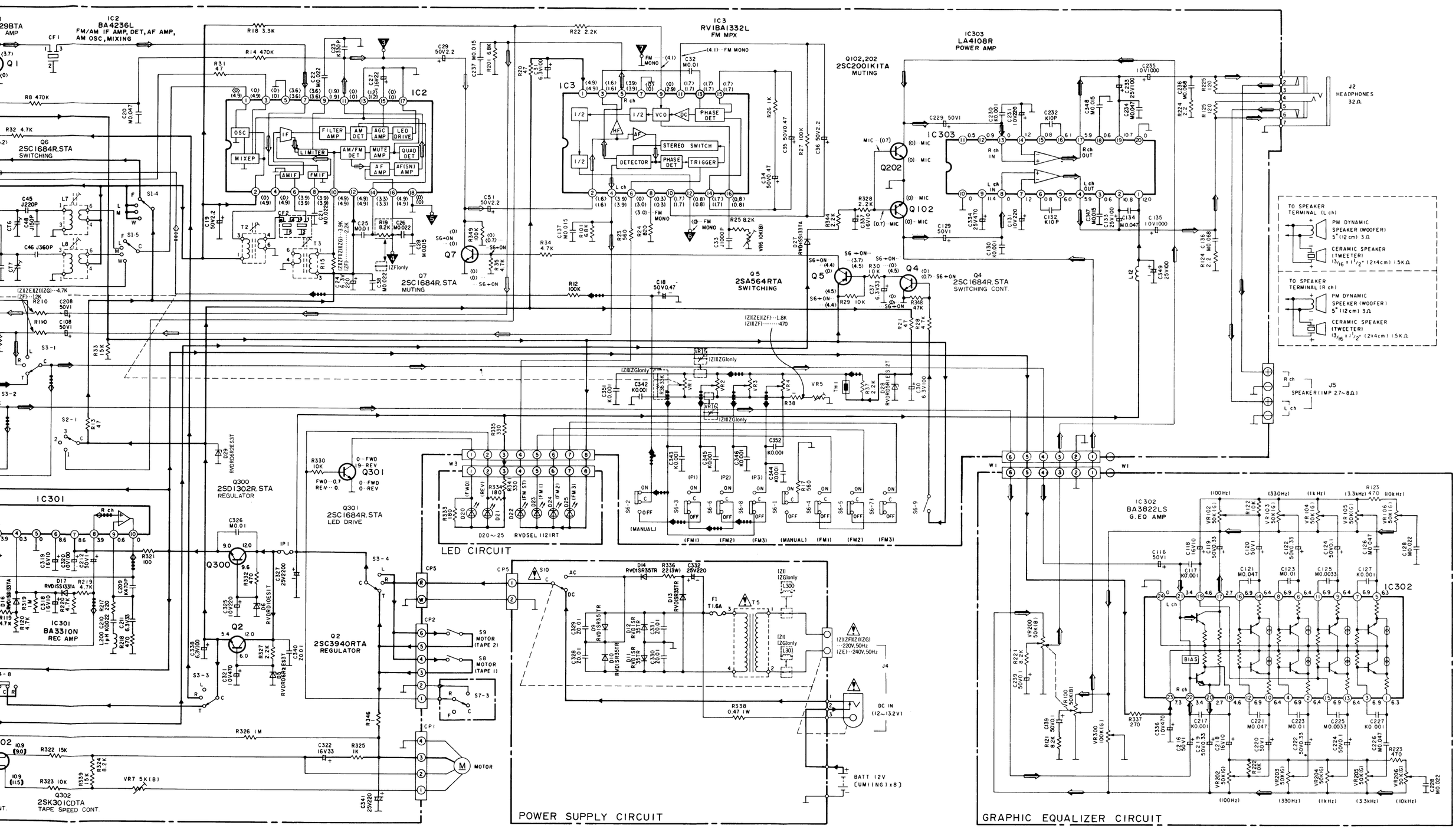
1. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. Ⓜ Indicates parts that are supplied by MESA.
3. The letter in square brackets in the Ref. No. column indicates the shipping destination.
   [Z]...For all European areas except United Kingdom, F.R. Germany, France, Italy and Finland.
   [ZE]...For United Kingdom.
   [ZF]...For France.
   [ZI]...For Italy and Finland.
   [ZG]...For F.R. Germany.

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC1	AN7205	I.C. FRONT END
IC2	BA4236L	I.C. FM/AM IF
IC3	RV1BA1332L	I.C. FM MPX
IC300	AN7310N	I.C. EQ AMP
IC301	BA3310N	I.C. REC AMP
IC302	BA3822LS	I.C. G.EQ AMP
IC303	LA4108R	I.C. POWER AMP
TRANSISTORS		
Q1	2SC829BTA	TRANSISTOR
Q2	2SC3940-R	TRANSISTOR
Q4	2SC1685-Q	TRANSISTOR
Q5	2SA722-S	TRANSISTOR
Q6, Q7	2SC1685-Q	TRANSISTOR
Q101	2SC1685-Q	TRANSISTOR
Q102	2SC2001K1	TRANSISTOR
Q201	2SC1685-Q	TRANSISTOR
Q202	2SC2001K1	TRANSISTOR
Q300	2SD1302R	TRANSISTOR
Q301	2SC1685-Q	TRANSISTOR
Q302	2SK381CD	TRANSISTOR
Q303, Q304	2SC1685-Q	TRANSISTOR
Q305	2SD1302R	TRANSISTOR
Q306	2SC1684STA	TRANSISTOR
Q307, Q308	2SC1685-Q	TRANSISTOR
DIODES		
D1, D2	RVDKV1330A2	DIODE
D3	MA840B	DIODE
D4	RVD1SS133	DIODE
D5	RVDRD6R2ES3T	DIODE
D6	RVDRD10ES1T	DIODE
D9, D10	RVD1SR35	DIODE
D11, D12	RVD1SR35	DIODE
D13, D14	RVD1SR35	DIODE
D15, D16	RVD1SS133	DIODE
D17	RVD1SS133	DIODE
D20, D21	RVDSEL1121RT	DIODE
D22, D23	RVDSEL1121RT	DIODE
D24, D25	RVDSEL1121RT	DIODE
D27	RVD1SS133	DIODE
D28	RVDRD5R1ES2T	DIODE
D29	RVDRD6R2ES3T	DIODE
I.C.PROTECTORS		
IP1	RAHICPN5	I.C.PROTECTOR
VARIABLE RESISTORS		
VR2, VR3	EVUE2AE25B15	V.R, FM1 PRESET
VR4	EVUE2AE25B15	V.R, FM3 PRESET
VR5 [ZG, ZI]	EVM4LGA00B53	V.R, F MIN Ⓜ
VR5 [Z, ZE, ZF]	EVND4AA00B14	V.R, F MIN
VR6	EVND4AA00B14	V.R, FM VCO
VR7	EVND1AA00B53	V.R, TAPE SPEED
VR15, VR16 [ZG, ZI]	EVND4AA00B13	V.R, F MIN
VR100 [Z, ZE, ZF]	EWAHF2C95B54	V.R, VOLUME
VR102, VR103	EWAHQ6C95G54	V.R, G.EQ
VR104, VR105	EWAHQ6C95G54	V.R, G.EQ
VR106	EWAHQ6C95G54	V.R, G.EQ
VR300	EWAHU2C95G15	V.R, BALANCE
VARIABLE CAPACITORS		
CT1	RCVTZ20F	TRIMMER
CT2	RCV15AF1-S	TRIMMER
CT3	RCVTZ20F	TRIMMER
CT5	RCVMFTPC7B	V.C.
CT6	RCV15AF1-S	TRIMMER
VC1	RCV2R6V1K-M	VARIABLE CAPACITOR
THERMISTORS AND VARISTORS		
TH1 [Z, ZE, ZF]	RR1202	THERMISTOR
COILS AND TRANSFOMERS		
L2 [ZG, ZI]	RL04N248-0	COIL
L2 [Z, ZE, ZF]	RL04Y162W-0	COIL
L3	RLF6W9	FERRITE ANTENNA
L4	RLQY30S1	COIL
L6	RLA3B41	COIL
L7	RL01B13	OSCILLATOR COIL
L8	RL02B108	COIL
L9	RL03B87	COIL
L11	RLQY30S1	COIL
L12	RLQY11G4	COIL
L100, L200	RLQZB102K	COIL
L300, L301 ⚠ [ZG, ZI]	RLQZB470K	COIL
T1	RL14B153	I.F.TRANSFORMER
T2	RL12B153	I.F.TRANSFORMER
T3	RL14B153	I.F.TRANSFORMER
T4	RL09B17	COIL
T5 ⚠ [ZE]	RLT5L4A3B-S	TRANSFORMER Ⓜ
T5 ⚠ [Z, ZF, ZG] [ZI]	RLT5L4G3B-S	TRANSFORMER Ⓜ
COMPONENT COMBINATIONS		
Z1	EXCFF76108L	COMPONENT COMBINATION
FILTERS		
CF1	RVF107WMZ	CERAMIC FILTER
CF2 [Z, ZF, ZG] [ZI]	RVFSFZ455JZ	CERAMIC FILTER
CF2 [ZE]	RVFSFZ470JL	CERAMIC FILTER
FUSES		
F1 ⚠	XBA2C16TB0U	FUSE
SWITCHES		
S1	RSS4H02Z	SW, BAND
S2	RSS3B22Z	SW, FM MODE/BAND
S3	RSS3D13Y	SW, FUNCTION
S4	RSH2H05ZA-Q	SW, R/P
S5	RSS3B22Z	SW, EDIT MODE
S6	ESB621673	SW, FM PRESET
S7	RFA62Z	SW, FWD/REV
S8	RFA52Z	SW, MOTOR
S9	RFA83ZA	SW, MOTOR
S10 ⚠ [Z, ZF, ZG] [ZI]	RJJ1F2ZC-H	JACK W/S.W
S10 ⚠ [ZE]	RJJ1F3Z	JACK W/S.W
OTHERS		
J1	RJJD3M6Z	JACK, MIXING MIC
J2	RJJ1D29Z	JACK, PHONE
J3	RJF1099YA-C	JACK, LINE IN
J4 ⚠ [Z, ZF, ZG] [ZI]	RJJ1F2ZC-H	JACK W/S.W, AC/DC IN
J4 ⚠ [ZE]	RJJ1F3Z	JACK W/S.W
J5	RJF1098ZA-H	JACK, SPEAKER Ⓜ

SCHEMATIC DIAGRAM



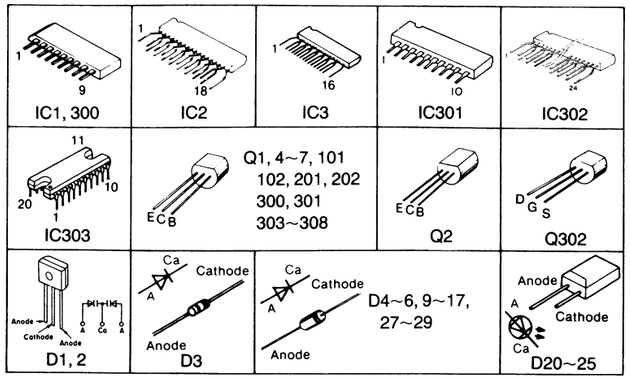
SCHEMATIC DIAGRAM



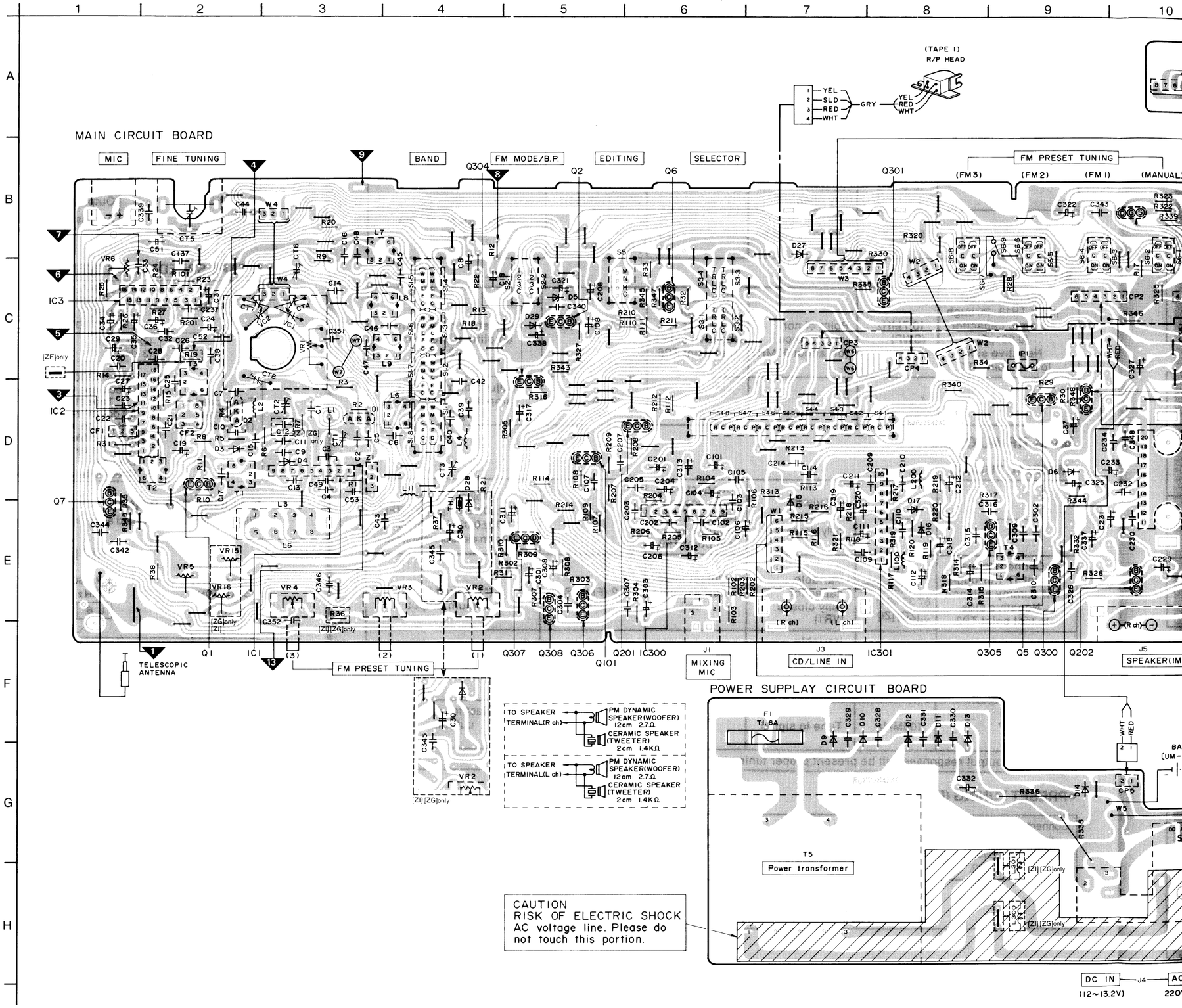
Notes:

1. S1-1~S1-8: Band select switch in "FM" position. (F...FM, L...LW, M...MW, W...SW)
2. S2-1, S2-2: FM mode select/Beat proof switch in "STEREO/III" position. (1...STEREO/III, 2...STEREO/II, 3...MONO/I)
3. S3-1~S3-4: Function select switch in "TAPE" position. (T...TAPE, R...RADIO, L...CD/LINE)
4. S4-1~S4-8: Record/Playback switch in "PLAYBACK" position. (R...RECORD, P...PLAYBACK)
5. S5: Editing mode select switch in "BUILT IN MIC" position. (M...BUILT IN MIC, N...NORMAL, H...HIGH)
6. S6-1~S6-9: FM preset tuning switch in "MANUAL" position. (S6-1, S6-2...MANUAL, S6-3, S6-4...FM1, S6-5, S6-6...FM2, S6-7, S6-8...FM3, S6-9...MANUAL/PRESET select)
7. S7-1~S7-3: FWD/REV select switch in "FWD" position. (F...FWD, R...REV)
8. S8: TAPE 1 motor switch in "OFF" position.
9. S9: TAPE 2 motor switch in "OFF" position.
10. S10: AC/DC select switch in "DC" position.
11. VR1: Manual tuning VR.
12. VR2: FM preset tuning VR. (FM 1)
13. VR3: FM preset tuning VR. (FM 2)
14. VR4: FM preset tuning VR. (FM 3)
15. VR5: F min adjustment VR.
16. VR6: FM VCO adjustment VR.
17. VR7: Tape speed adjustment VR.
18. VR15: F max adjustment VR. ([ZG] [ZI] only)
19. VR16: F min adjustment VR. ([ZG] [ZI] only)
20. VR100, VR200: Volume control VR.
21. VR102, VR202: Graphic equalizer VR. (100 Hz)
22. VR103, VR203: Graphic equalizer VR. (330 Hz)
23. VR104, VR204: Graphic equalizer VR. (1 kHz)
24. VR105, VR205: Graphic equalizer VR. (3.3 kHz)
25. VR106, VR206: Graphic equalizer VR. (10 kHz)
26. VR300: Balance control VR.
27. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
    < >...FM, ( )...AM, No mark...Playback, [ ]...Record, [[ ]]...High speed
28. Battery current: No signal ..... 99 mA
    Maximum output (radio) ..... 780 mA
    Maximum output (tape) ..... 1190 mA
29. The supply parts number is described alone in the replacement parts list.
30. The mark (▼) shows test point. e.g. ▼1 =test point 1.
31. Important safety notice
    Components identified by ⚠ mark have special characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.
    - **This schematic diagram may be modified at any time with the development of new technology.**

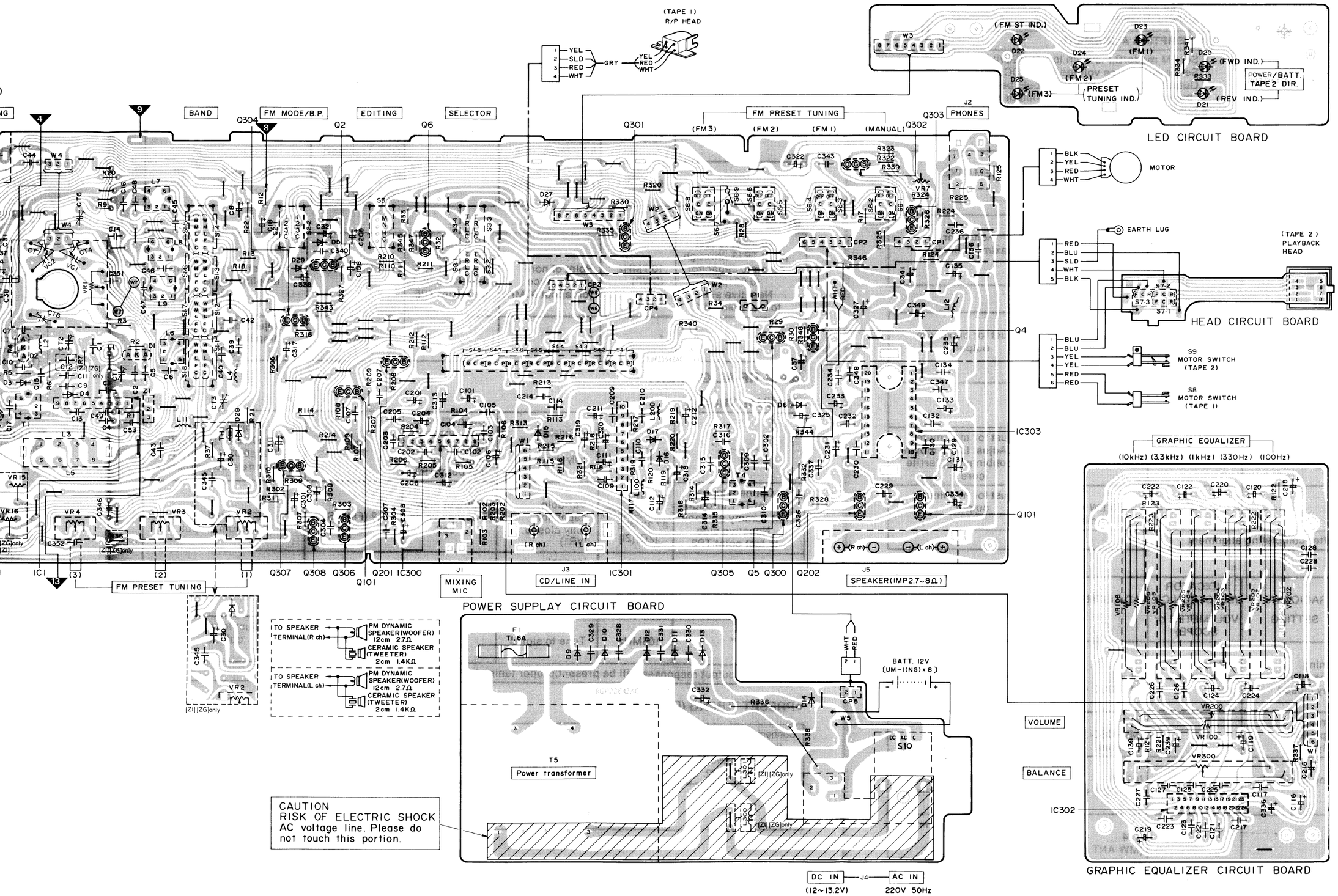
⇨...FM Signal Line
⇨...Record Signal Line
➡...V Cap Voltage Line
➡...+B Line
➡...Playback Signal Line
⇨...Main (FM/Playback) Signal Line



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

[Z]...For all European areas except United Kingdom, F.R.Germany,Feance,Italy and Finland.
[ZE]...For United Kingdom. [ZF]... For Feance [ZI]...For Italy. [ZG]...For F.R.Germany.

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1.Set volume control to maximum.	6.Set FM mode/B.P.switch to STEREO/II
2.Set graphic equalizer to center.	7.Set power source voltage to 12V DC.
3.Set band switch to MW,LW,SW,or FM-ST.	8.Output of signal generator should be no higher than necessary to obtain an output reading.
4.Set function selector to radio.	9.Set editing select switch to normal.
5.Set fine tuning to center.	

■AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL	INDICATOR (ELECTRONICS	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY	SETTING	VOLTMETER or SCOPE)		
Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KHz (470KHz... (ZE)only) 30% Mod. at 400Hz	Point of non-interference. (on/about 600KHz)	Output meter across voice coil	T2 (AM IFT)	Adjust for maximum output.

■LW-RF ALIGNMENT

Fashion loop of several turns of wire and radiate signal into loop of receiver.	136kHz	Tuning capacitor fully closed.	Output meter across voice coil	L7(LW OSC Coil)	Adjust for maximum output.
〃	297kHz	Tuning capacitor fully open.	〃	CT6(LW OSC Trimmer)	〃
〃	145kHz	Tune to signal	〃	(*)L3(LW ANT Coil)	Adjust for maximum output.Adjust L3 by moving coil bobbin along ferrite core.
〃	285kHz	〃	〃	CT3(LW ANT Trimmer)	Adjust for maximum output.
(*1) Cement antenna bobbin with wax after completing alignment.					

■MW-RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL	INDICATOR (ELECTRONICS	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY	SETTING	VOLTMETER or SCOPE)		
Fashion loop of several turns of wire and radiate signal into loop of receiver.	511kHz	Tuning capacitor fully closed.	Output meter across voice coil.	L8 (MW OSC Coil)	Adjust for maximum output.
〃	1,650KHz	Tuning capacitor fully open.	〃	CT7 (MW OSC Trimmer)	〃
〃	550KHz	Tune to signal	〃	(*1)L5 (MW ANT Coil)	Adjust for maximum output.Adjust L5 by moving coil bobbin along ferrite core.
〃	1,500KHz	〃	〃	CT4 (MW ANT Coil)	Adjust for maximum output.
(*1)Cement antenna bobbin with wax after completing alignment.					

■SW-RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL	INDICATOR (ELECTRONICS	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY	SETTING	VOLTMETER or SCOPE		
Connect to test point TP1 through ceramic capacitor (10pF) Negative side to test point TP2.	5.75MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L9 (SW OSC Coil)	Adjust for maximum output.
〃	18.8MHz	Tuning capacitor fully open.	〃	CT8 (SW OSC Trimmer)	〃
〃	5.9MHz	Tuning to signal.	〃	L6 (SW ANT Coil)	Adjust for maximum output.

■FM-IF ALIGNMENT

Connect to test point TP13. through ceramic capacitor (0.001μF) Negative side to test point TP2.	10.7MHz (SWP)	Point of non-interference (on/about 90MHz	Connect vert. amp. scope to test point TP3. Negative side to test point TP5.	T1(FM 1st)	Adjust for maximum amplitude.(Refer to fig.2.)
〃	〃	〃	〃	T3 (FM 2nd)	Adjust for maximum amplitude.(Refer to fig.3.)

■FM-RF ALIGNMENT

•MANUAL TUNING

———	———	Variable capacitor fully closed.	Connect vert. amp. scope to test point TP8. Negative side to test point TP9.	VR5	Adjust VR5 for 0.80±0.03 V...[Z] [ZE] [ZF] 1.00±0.03 V...[ZG] [ZI] reading on electronics voltmeter
Connect to test point TP1.through FM dummy antenna. Negative side to test point TP2.	86.2 MHz ...[Z] [ZE] [ZF] 87.35 MHz ...[ZG] [ZI]	Variable capacitor fully closed. (VR1)	Output meter across voice coil.	L2 (FM OSC coil)	(*2)Adjust for maximum output.
〃	109.2 MHz ...[Z] [ZE] [ZF] 108.3 MHz ...[ZG] [ZI]	Variable capacitor fully open. (VR1)	〃	CT2 (FM OSC Trimmer)	〃
〃	106MHz	Tune to signal	〃	CT1 (FM ANT Trimmer)	(*2)Adjust for maximum output.
(*2) Three output responses will be present;proper tuning is the center frequency.					

•PRESET TUNING ([ZG] [ZI] only)

Connect to test point TP1. through FM dummy antenna. Negative side to test point TP2.	87.35 MHz	Variable capacitor fully closed.	Output meter across voice coil.	VR16	Adjust for maximum output.
〃	108.3 MHz	〃	〃	VR15	〃

■SW-RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL	INDICATOR (ELECTRONICS	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY	SETTING	VOLTMETER or SCOPE		
Connect to test point TP1 through ceramic capacitor (10pF) Negative side to test point TP2.	5.75MHz	Tuning capacitor fully closed.	Output meter across voice coil.	L9 (SW OSC Coil)	Adjust for maximum output.
〃	18.8MHz	Tuning capacitor fully open.	〃	CT8 (SW OSC Trimmer)	〃
〃	5.9MHz	Tuning to signal.	〃	L6 (SW ANT Coil)	Adjust for maximum output.

■FM-IF ALIGNMENT

Connect to test point TP13. through ceramic capacitor (0.001μF) Negative side to test point TP2.	10.7MHz (SWP)	Point of non-interference (on/about 90MHz	Connect vert. amp. scope to test point TP3. Negative side to test point TP5.	T1(FM 1st)	Adjust for maximum amplitude.(Refer to fig.2.)
〃	〃	〃	〃	T3 (FM 2nd)	Adjust for maximum amplitude.(Refer to fig.3.)

■FM-RF ALIGNMENT

•MANUAL TUNING

———	———	Variable capacitor fully closed.	Connect vert. amp. scope to test point TP8. Negative side to test point TP9.	VR5	Adjust VR5 for 0.80±0.03 V...[Z] [ZE] [ZF] 1.00±0.03 V...[ZG] [ZI] reading on electronics voltmeter
Connect to test point TP1.through FM dummy antenna. Negative side to test point TP2.	86.2 MHz ...[Z] [ZE] [ZF] 87.35 MHz ...[ZG] [ZI]	Variable capacitor fully closed. (VR1)	Output meter across voice coil.	L2 (FM OSC coil)	(*2)Adjust for maximum output.
〃	109.2 MHz ...[Z] [ZE] [ZF] 108.3 MHz ...[ZG] [ZI]	Variable capacitor fully open. (VR1)	〃	CT2 (FM OSC Trimmer)	〃
〃	106MHz	Tune to signal	〃	CT1 (FM ANT Trimmer)	(*2)Adjust for maximum output.
(*2) Three output responses will be present;proper tuning is the center frequency.					

•PRESET TUNING ([ZG] [ZI] only)

Connect to test point TP1. through FM dummy antenna. Negative side to test point TP2.	87.35 MHz	Variable capacitor fully closed.	Output meter across voice coil.	VR16	Adjust for maximum output.
〃	108.3 MHz	〃	〃	VR15	〃

■SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98MHz,60dB(CW) Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2.	TP 6....(+) TP 7....(-)	VR6	19kHz	Adjust VR6,for19KHz±50Hz reading on electronics counter.

■ AZIMUTH ALIGNMENT

INPUT	MEASUREMENT	SPCIFICATION	ADJUSTMENT	REMARKS
QZZCFM (8kHz,-20dB)	Output meter Across voice coil.	Maximum output	Azimuth screw (Refer to Fig.4)	Playback mode FM Mode switch → Stereo/II

■ TAPE SPEED ADJUSTMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
Tape speed adjustment (Tape [1] & [2])	QZZCWAT (3 kHz)	Headphone Jack (32Ω)	VR7 (Refer to Fig. 1)	**Normal Speed Adjustment** 1. Insert a test tape (QZZCWAT) in tape [2] and play it back. 2. Adjust **VR301** until the measured value becomes **3.010±30 Hz**. 3. Check tape [1] in the same way to make sure it satisfies the specificaiton. **Tape [1]**...**±50 Hz** of the speed of tape [2]. If it doesn't repeat steps 1 and 2 above. **Note:** This set uses one drive motor, so be sure to perform the adjustment in tape [2]. **High Speed Measurement** 4. Short the test point ⑩ and ⑫ to set the high speed mode. (Refer to Circuit Board and Wiring Connection Diagram) 5. Check to be sure that the measured speed is at least **1.7 times** faster than normal speed.

■ ALIGNMENT POINT

• Please refer to Circuit Board an Wiring Connection Diagram for test point locations.

MAIN CIRCUIT BOARD

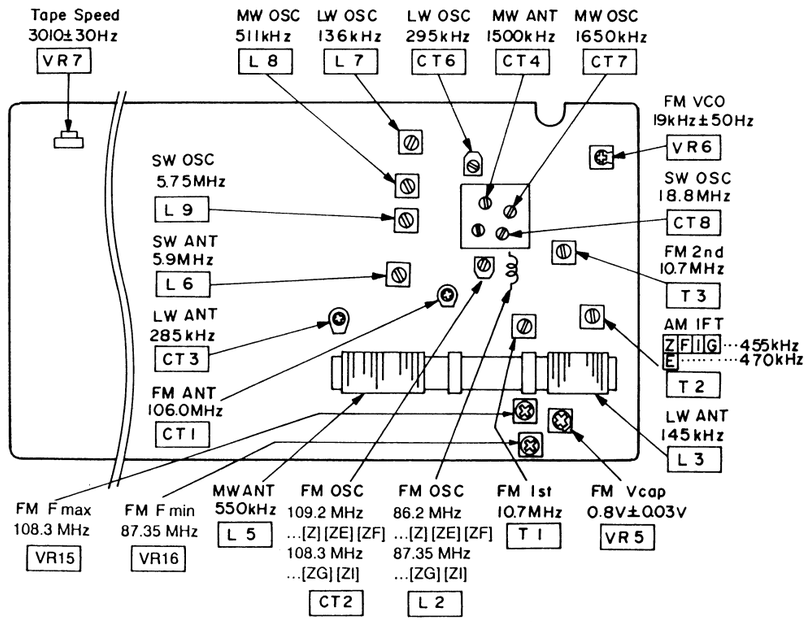


Fig. 1

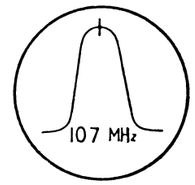


Fig. 2

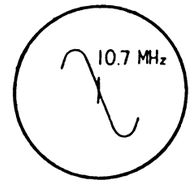


Fig. 3

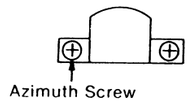
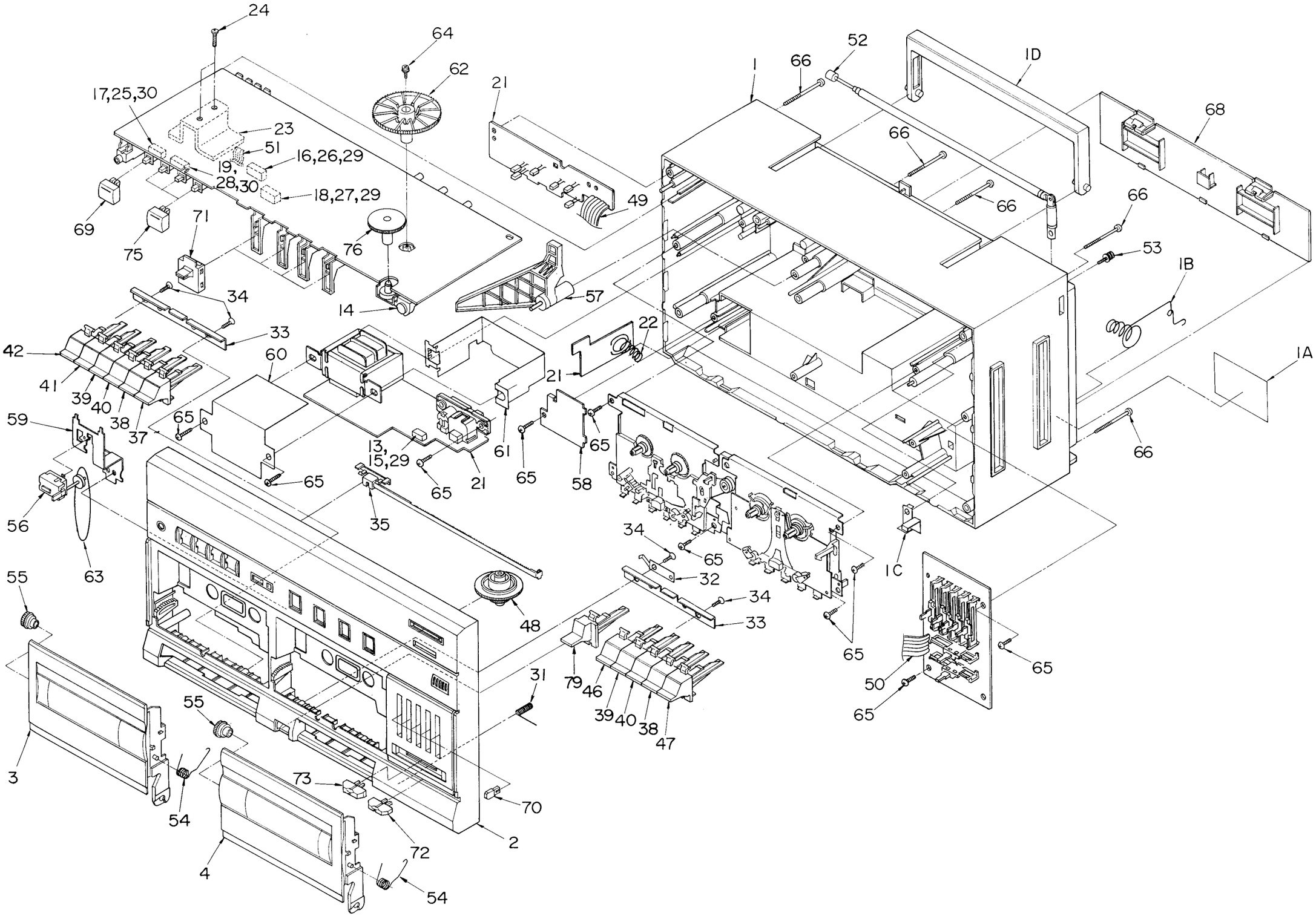


Fig. 4

CABINET PARTS LOCATION



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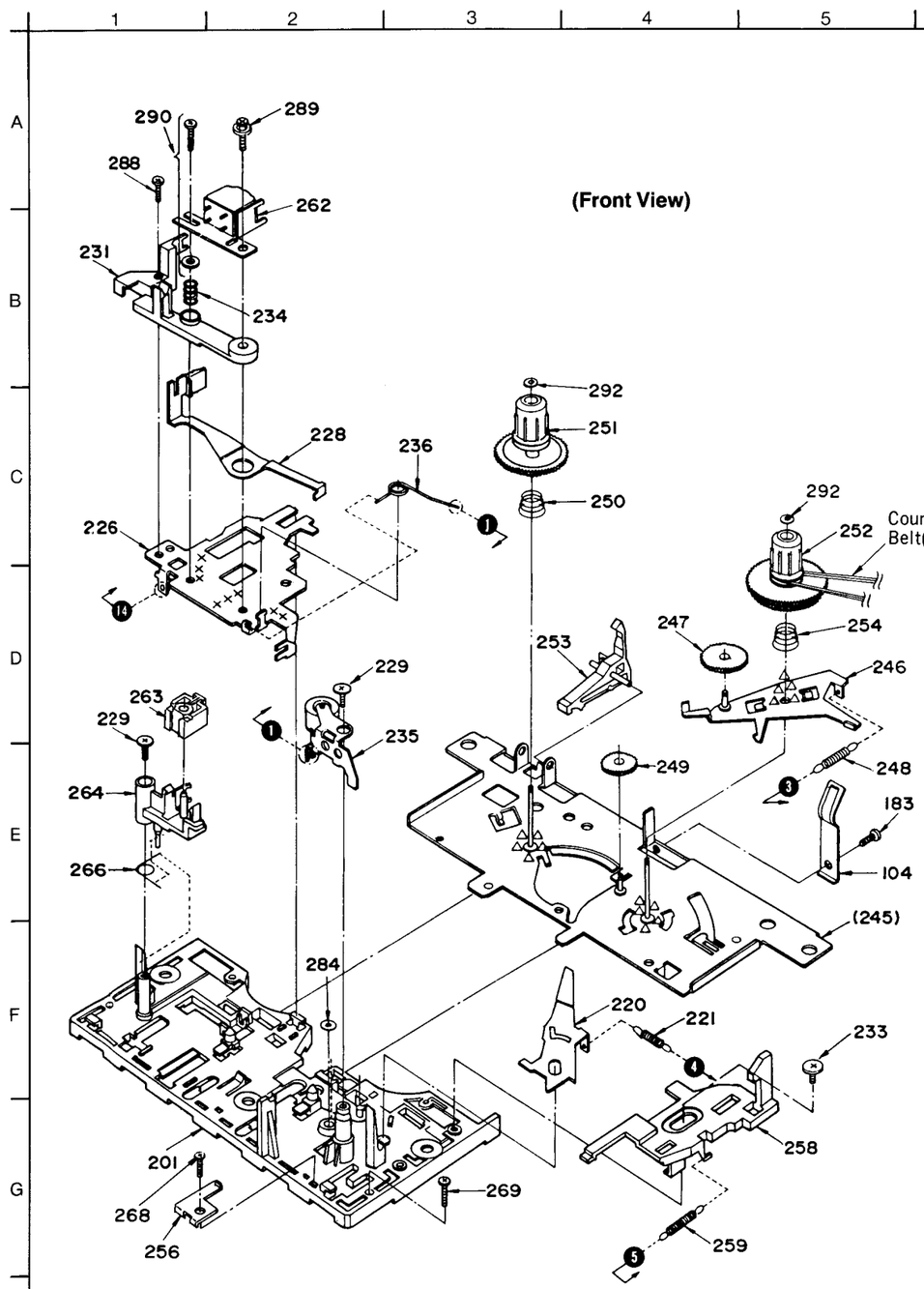
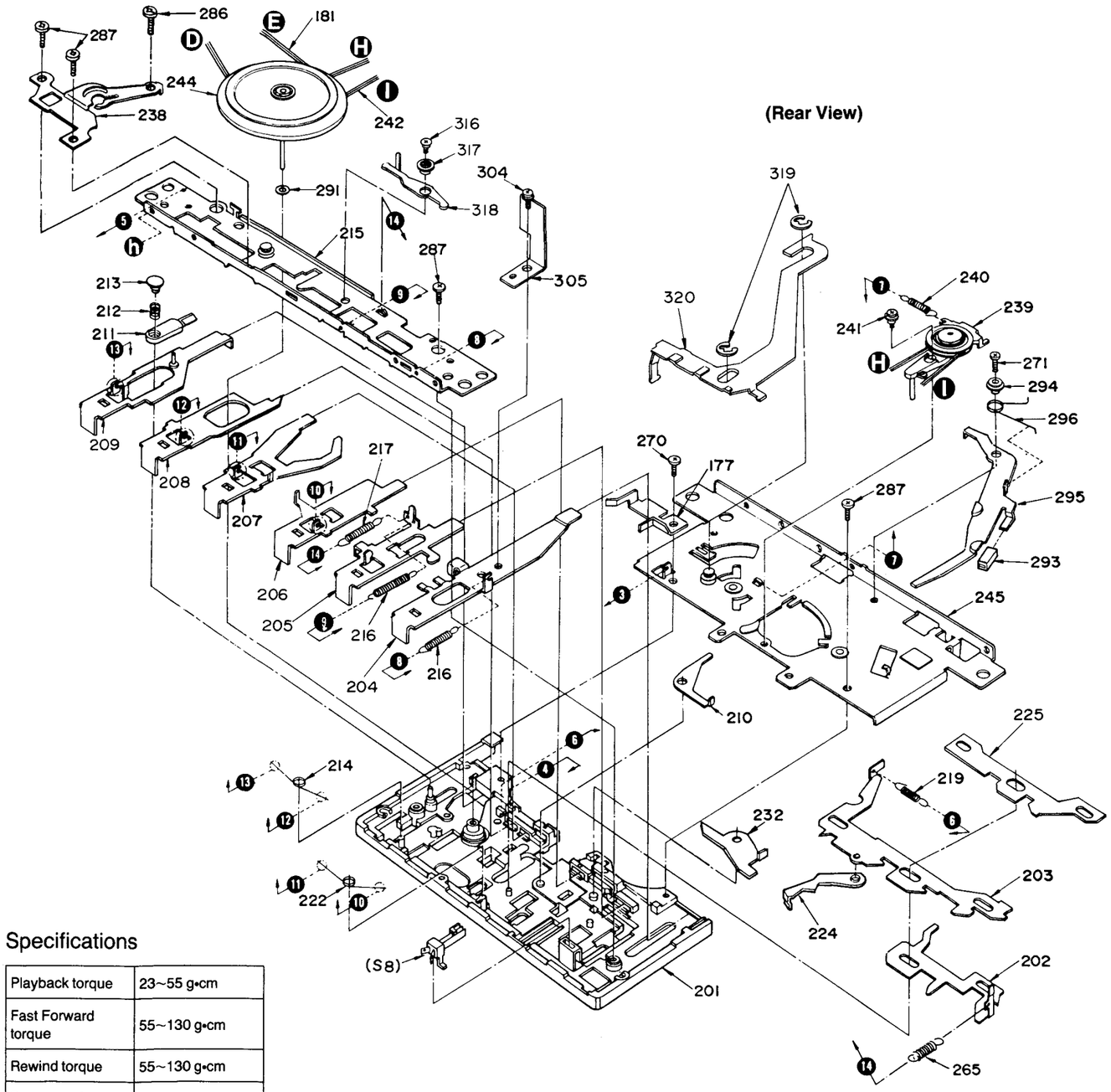
MECHANISM PARTS LOCATION TAPE 1 (For Recording and Playback)

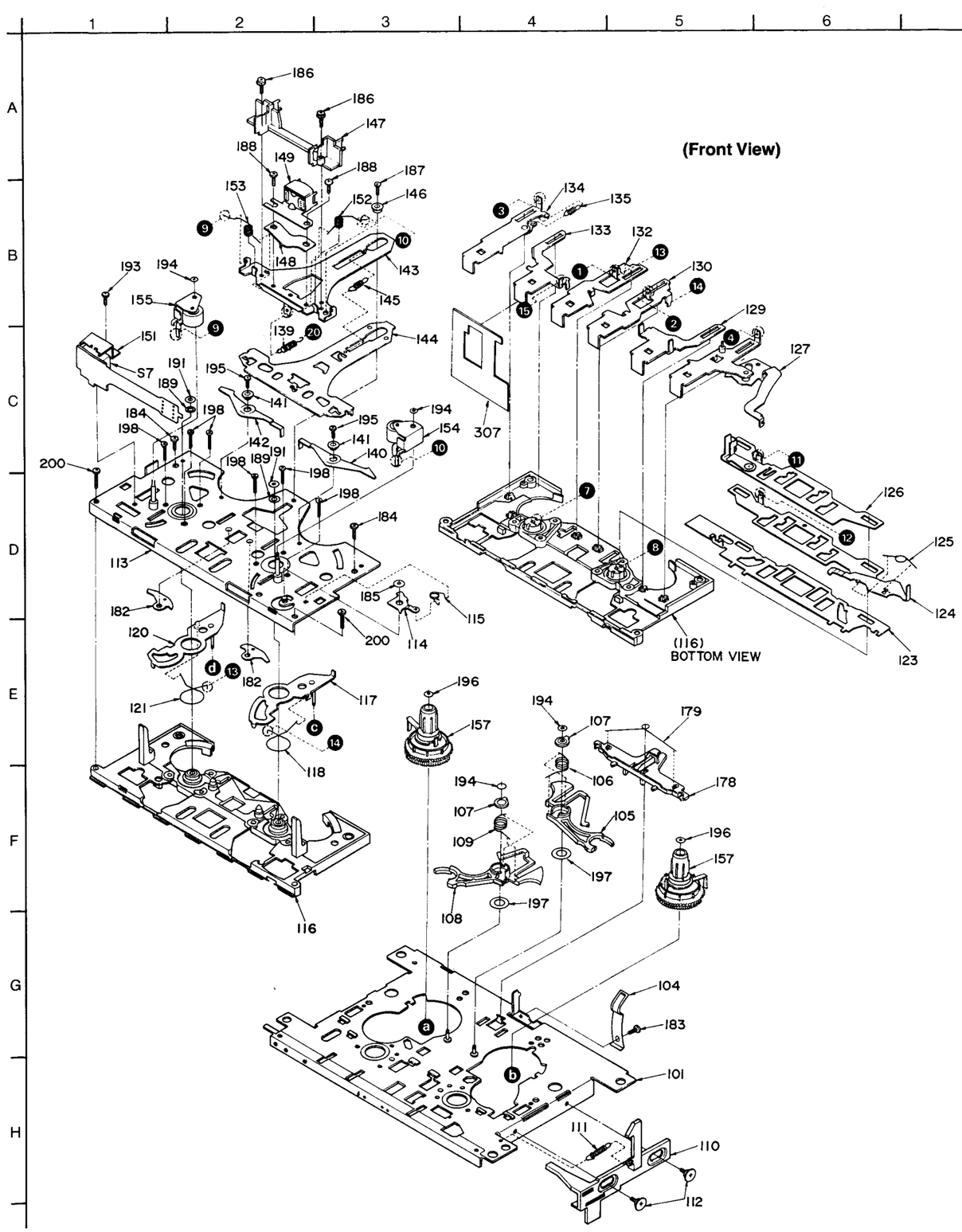


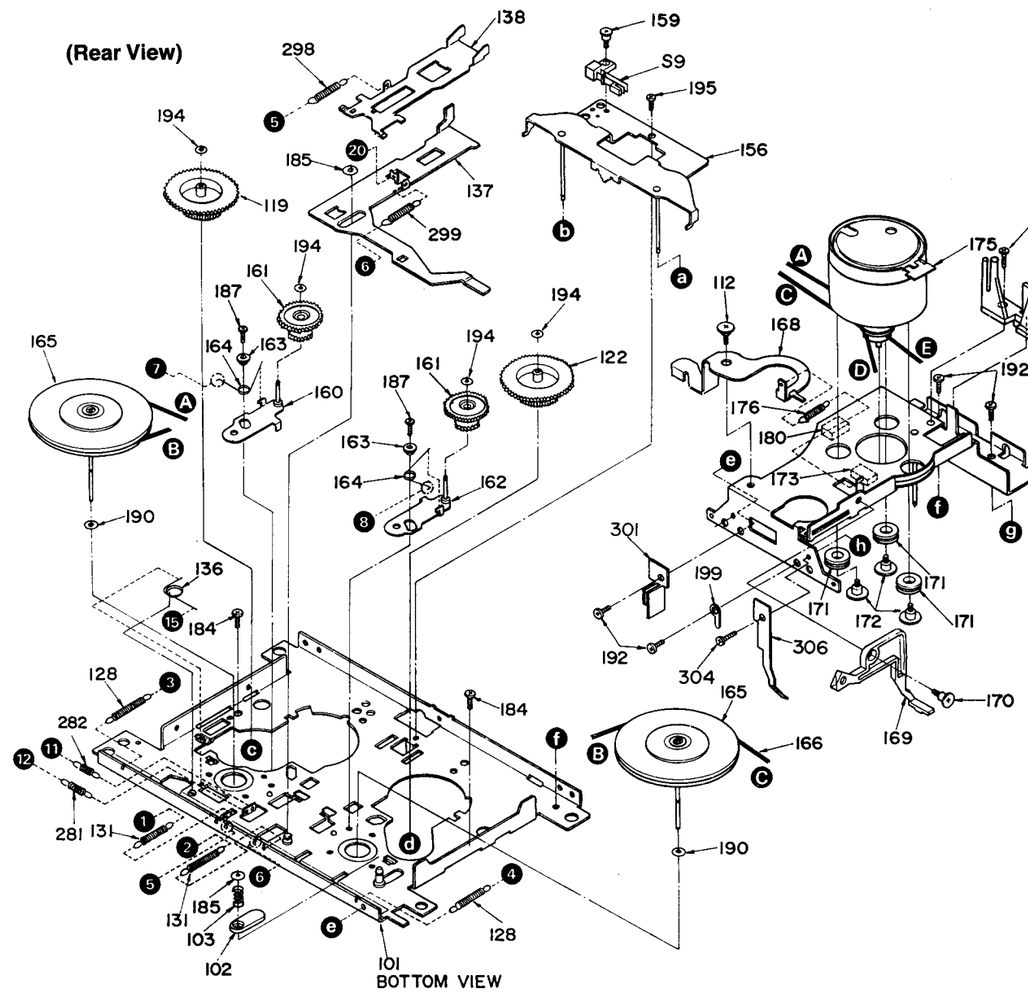


Specifications

Playback torque	23~55 g•cm
Fast Forward torque	55~130 g•cm
Rewind torque	55~130 g•cm
Pressure of pressure roller	400±50 g
Wow and flutter	Less than 0.25% (WRMS)

MECHANISM PARTS LOCATION TAPE 2 (For Auto-Reverse Playback)





Specifications

Playback torque	23~55 g•cm
Fast Forward torque	55~130 g•cm
Rewind torque	55~130 g•cm
Pressure of pressure roller	240±50 g
Wow and flutter	Less than 0.25% (WRMS)

MECHANISM PARTS LIST

Notes:
1. Ⓜ Indicates parts that are supplied by MESA.
2. **See page 17~20 regarding the illustrations.**

Ref. No.	Part No.	Description
MECHANISM		
CASSETTE DECK		
101	RFU128ZA	CHASSIS ASS'Y
102	RFY420Z	LEVER
103	RFS459Z	SPRING
104	RFS534Z	SPRING
105	RFY798ZA	LEVER
106	RFS724ZA	SPRING
107	RFX161ZA	STOPPER
108	RFY799ZA	LEVER
109	RFS725ZA	SPRING
110	RFY800ZA	LEVER
111	RFS726ZA	SPRING
112	RFE239Z	SCREW
113	RFU129ZA	SUB CHASSIS ASS'Y
114	RFY801ZA	ARM
115	RFS727ZA	SPRING
116	RFU130ZA	BUTTON BASE ASS'Y
117	RFY802ZA	LEVER
118	RFS728ZA	SPRING
119	RFG111ZA	GEAR
120	RFY803ZA	ARM ASS'Y
121	RFS729ZA	SPRING
122	RFG112ZA	GEAR
123	RFY804ZA	SLIDE PLATE
124	RFY805ZA	LEVER
125	RFS730ZA	SPRING
126	RFY806ZA	ROD
127	RFY827ZA	LEVER
128	RFS731ZA	SPRING
129	RFY828ZA	LEVER
130	RFY829ZA	LEVER
131	RFS732ZA	SPRING
132	RFY830ZA	LEVER
133	RFY831ZA	LEVER
134	RFY832ZA	LEVER
135	RFS733ZA	SPRING
136	RFS734ZA	SPRING
137	RFY813ZA	RELAY PLATE
138	RFY814ZA	PLATE
139	RFS735ZA	SPRING
140	RFY815ZA	ARM
141	RFX162ZA	COLLAR
142	RFY816ZA	ARM
143	RFY817ZA	HEAD PANEL
144	RFY818ZA	R.C PLATE
145	RFS736ZA	SPRING
146	RFX163ZA	COLLAR
147	RFE417ZA	GUIDE
148	RFS737ZA	SPRING
149	1JH0028ZA	HEAD ASSY
151	RFD334ZA	ANGLE
152	RFS751ZA	SPRING
153	RFS752ZA	SPRING
154	RFR46ZA	PINCH ROLLER
155	RFR47ZA	PINCH ROLLER
156	RFU131ZA	REEL PLATE ASS'Y
157	RFJ77ZA	REEL TABLE
160	RFY819ZA	ARM ASS'Y
161	RFG113ZA	GEAR
162	RFY820ZA	ARM ASS'Y
163	RFX164ZA	COLLAR
164	RFS740ZA	SPRING
165	RFF56ZA	FLYWHEEL ASS'Y
166	RFB90ZA	BELT
167	RFD335ZA	ANGLE
168	RFY821ZA	LEVER
169	RFY582Z	LEVER
170	RFE419ZA	SCREW
171	RFI38Z	RUBBER
172	RFE213Z	SCREW
173	RFI49ZA	CUSHION
175	RFM127ZA	MOTOR ASS'Y Ⓜ
176	RFS741ZA	SPRING
177	RFD232Z	ANGLE
178	RFY822ZA	PLATE
179	RFS743ZA	SPRING
180	FI50ZA	CUSHION
181	RFB93ZA	BELT
182	RFY823ZA	ARM
183	RFE420ZA	SCREW
184	RFE222Z	SCREW
185	RFN134Z	SCREW
186	RFE422ZA	SCREW
187	RFE423ZA	SCREW
188	RFE431ZA	SCREW
189	RFN122Z	WASHER
190	RFN136Z	WASHER
191	RFN182ZA	WASHER
192	RFE425ZA	SCREW
193	RFE421ZA	SCREW
194	RFN133Z	WASHER
195	RFE426ZA	SCREW
196	RFN139Z	WASHER
197	RFN183ZA	WASHER
198	RFE427ZA	SCREW
199	RFE228Z	TERMINAL, LUG
200	RFE428ZA	SCREW
201	RFU61YA	MAIN BASE PLATE
202	RFY541Z	LEVER
203	RFY764ZA	LEVER
204	RFY594Z	LEVER
205	RFY595Z	LEVER
206	RFY597Z	LEVER
207	RFY596Z	LEVER
208	RFY833ZA	LEVER
209	RFY621Z	LEVER
210	RFY548Z	LEVER
211	RFY825ZA	LEVER
212	RFS459Z	SPRING
213	RFX122Z	STOPPER
214	RFS462Z	SPRING
215	RFU62Z	SUB CHASSIS
216	RFS463Z	SPRING
217	RFS506Z	SPRING
218	RFS572Z	SPRING
219	RFS464ZA	SPRING
220	RFY549Z	LEVER
221	RFS453Z	SPRING
222	RFS561Z	SPRING
224	RFY591Z	LEVER
225	RFY622Z	RF ACTUATOR
226	RFE227Z	HEAD PANEL
228	RFY626Z	ARM ASS'Y
229	RFE245Z	SCREW
230	RFS745ZA	SPRING
231	RFU39Z	HEAD BASE
232	RFX101Z	PR STOPPER
233	RFE255Z	SCREW
234	RFS447Z	SPRING
235	RFR48ZA	PINCH ROLLER
236	RFS746ZA	SPRING
238	RFE279Z	METAL GUIDE
239	RFQ47Z	PULLEY ARM ASS'Y
240	RFS532Z	SPRING
241	RFE281Z	SCREW
242	RFB62Z	BELT
244	RFF55ZA	WHEEL
245	RFU132ZA	REEL PLATE ASS'Y
246	RFY826ZA	PLATE ASS'Y
247	RFG109ZA	GEAR
248	RFS450Z	SPRING
249	RFG110ZA	GEAR
250	RFS723ZA	SPRING
251	RFJ62Z	REEL TABLE ASS'Y
252	RFJ78ZA	REEL TABLE ASS'Y
253	RFY716Z	LEVER
254	RFS707ZA	SPRING
256	RFD298ZA	BRACKET, DETECTOR
258	RFY415Z	SLIDE LEVER
259	RFS454Z	SPRING
262	RJH2E9Y	R/P HEAD
263	RJH2C12XZ	E.HEAD
264	RFY397Z	ARM
265	RFS567Z	SPRING
266	RFS535Z	SPRING
268	RFE321Z	SCREW
269	RFE232Z	SCREW
270	RFE222Z	SCREW
271	RFE221Z	SCREW
281	RFS747ZA	SPRING
282	RFS748ZA	SPRING
284	RFN123Z	WASHER
286	RFE425ZA	SCREW
287	RFE416ZA	SCREW
288	XSN2+6	SCREW
289	RFE89Z	SCREW
290	RFE230Z	SCREW
291	RFN169Z	WASHER
292	RFN171ZA	WASHER
293	RFI37Z	RUBBER
294	RFX138Z	COLLAR
295	RFY717Z	LEVER
296	RFS749ZA	SPRING
298	RFS731ZA	SPRING
299	RFS750ZA	SPRING
301	RHR1360ZA	HOLDER
302	RHR183ZA	HOLDER Ⓜ
303	XTN2+4F	SCREW
304	XYN2+C3	SCREW
305	RUS737ZAA	SPRING
306	RJT1120ZA	TERMINAL
307	RMC1190ZA	SHIELD PLATE
316	RFE93Z	SCREW
317	RFX130Z	COLLAR
318	RFY834ZA	LEVER
319	XUC2	RETAINING RING
320	RFY573Z	LEVER

CABINET PARTS LIST

Notes:
1. Important safety notice
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. The letter in square brackets in the Ref. No. column indicates the shipping destination.
   [Z]...For all European areas except United Kingdom, F.R. Germany, France, Italy and Finland.
   [ZE]...For United Kingdom.
   [ZF]...For France.
   [ZI]...For Italy and Finland.
   [ZG]...For F.R. Germany.
3. Ⓜ Indicates parts that the supplied by MESA.
4. See page 15, 16 regarding the illustrations.

Ref. No.	Part No.	Description
CABINET AND CHASSIS		
1 (Z, ZF)	RYF1XCW43LZ	REAR CABINET
1 ⚠ (ZE)	RYF1XCW43LZE	REAR CABINET
1 (ZG)	RYF1XCW43LZG	REAR CABINET
1 (ZI)	RYF1XCW43LZI	REAR CABINET
1A (ZI)	RGT1343TA-0	NAME PLATE
1A (ZG)	RGT1343VA-0	NAME PLATE
1A (ZE)	RGT1343WA-0	NAME PLATE
1A (Z, ZF)	RGT1343XA-0	NAME PLATE
1B	RJC931Z	BATTERY TERMINA
1C	RJT1099ZA	TERMINAL
1D	RKX356ZBB-0	HANDLE
2 (Z, ZF)	RYM1XCW43LZ	FRONT CABINET
2[ZE] ⚠	RYM1XCW43LZE	FRONT CABINET
2 (ZG, ZI)	RYM1XCW43LZG	FRONT CABINET
3	RYQ1XCW43M	CASSETTE LID
4	RYQ2XCW43M	CASSETTE LID
5	RYF2XCW43M	SP BOX ASSY
5A	RGE76X	STOPPER(R)
6	RYF3XCW43M	SP BOX ASSY
6A	RGE76Y	STOPPER(L)
7	RYM2XCW43M	BAFFLE ASSY
7A	RAF25E4M02-T	SPEAKER
8	RAS12P17ZA-F	SPEAKER
9	RJE175Y	CORD
10	XTV3+20G	SCREW
11	XTV3+8G	SCREW
12	RHR171ZAS-0	CORD BUSHING
13	RJS2L3Z	SOCKET (2P)
14	RJM164Z	MICROPHONE
15	RJP2G4Y	PLUG (2P)
16	RJP4G18ZA	PLUG (4P)
17	RJP4G4Y	PLUG(4P)
18	RJP5G18Z	PLUG (5P)
19	RJP6G4Y	PLUG(6P)
21 ⚠	RUP2364ZAC-1	P.C.B
22	RJC511Z	TERMINAL
23	RMY242ZA	HEAT SINK
24	XTV3+8F	SCREW
25	RJS4L3Z	SOCKET(4P)
26	RJS4L4Z	SOCKET (4P)
27	RJS5L4Z	SOCKET (5P)
28	RJS6L3Z	SOCKET (6P)
29	RJT707Z	TERMINAL
30	RJT807Z	TERMINAL
31	RUW154ZA	SPRING
32	RJT1100ZA	TERMINAL BOARD
33	RMD1151YAA	ANGLE
34	XTS3+8J	SCREW
35	RDP343ZA-0	POINTER
37	RYT1XCW43M	KNOB, PAUSE
38	RYT2XCW43M	KNOB, STOP/EJEC
39	RYT3XCW43M	KNOB, REW/REV
40	RYT4XCW43M	KNOB, FF/CUE
41	RYT5XCW43M	KNOB, PLAYBACK
42	RYT6XCW43M	KNOB, RECORD
46	RYT7XCW43M	KNOB, PLAYBACK
47	RYT8XCW43M	KNOB, DIRECTION
48	RBT230ZAB-0	KNOB, TUNING
49	WBB8CB15.5KK	FLAT CABLE
50	WBB6CB-26KK	FLAT CABLE
51	WBB4CB-5KK	FLAT CABLE
52	XEARR225DAY	TELESCOPIC ANTENNA
53	XYN3+F12FY	SCREW
54	RUS689ZAA	SPRING
55	RDG5782YC	GEAR Ⓜ
56	RSE245ZA	COUNTER
57	RUB524ZA	LEVER
58	RUV802ZA	COVER
59	RMD2067ZA	ANGLE
60	RMC1158ZA	SHIELD PLATE
61	RMC1175ZA	SHIELD PLATE Ⓜ
62	RDG5840ZAA	GEAR
63	RDV91ZA	BELT
64	XYN26+C6	SCREW
65	XTV3+12G	SCREW
66	XTN3+40G	SCREW
68	RKK244XB-0	BATTERY COVER
69	RBC1267ZA-0	BUTTON, MANUAL
70	RBD248YAA-0	KNOB, EQ
71	RBD398YAA-0	KNOB, BAND ETC
72	RBD501ZA-0	KNOB, BALANCE
73	RBD502ZA-0	KNOB, VOLUME
75	RBC1267ZA-1	BUTTON, FM1.2.3
76	RBT310ZA-0	KNOB, FINE TUNING
79	RYT9XCW43M	KNOB, REVERSE
80 ⚠	RJF28Z	FUSE HOLDER

RESISTOR AND CAPACITOR PARTS LIST

Numbering System of Resistor

Example:

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value (100Ω)

ERJ	6G	C	J	2R2
Type	Wattage	Shape	Tolerance	Value (2.2Ω)

Numbering System of Capacitor

Example:

ECKD	1H	102	Z	F
Type	Voltage	Value (1000pF)	Tolerance	Peculiarity

ECEA	50	M	R47
Type	Voltage	Peculiarity	Value (0.47μF)

Resistor Type		Wattage	Tolerance
ERD:	Carbon Resistor	10 : 1/8W	F : ±1%
ERC:	Solid Resistor	25 : 1/4W	G : ±2%
ERF:	Incombustible Box-Shaped Wire-Wound Resistor	50 : 1/2W 18 : 1/8W 14 : 1/4W 12 : 1/2W	J : ±5% K : ±10% M : ±20%
ERG:	Metal Oxide-Film Resistor	1 : 1W 2 : 2W	
ERM:	Wire-Wound Resistor	3 : 3W S1 : 1/2W	
ERO:	Superstable Metal Film Resistor	S2 : 1/4W 6G : 1/10W 8G : 1/8W	
ERX:	Metal-Film Resistor		
RRJ: ERJ:	Chip Resistor		

Capacitor Type		Voltage	Tolerance
ECCD:	Ceramic Capacitor (Chitacon)	(ECCD, ECKD Type) 1H : 50V DC 2H : 500V DC	K : ±10% M : ±20%
ECKD:	Ceramic Capacitor (Chitabari)	(ECFD Type) C : 12V DC D : 25V DC	Z : +80% −20%
ECFD:	Semiconductor Ceramic Capacitor	E : 50V DC (ECQ Type)	J : ±5% G : ±2%
ECE□: ECS□:	Electrolytic Capacitor Tantalum Fixed Electrolytic Capacitor	05 : 50WV DC 1 : 100WV DC (ECE, ECS Type) 0G : 4V 0J : 6.3V	F : ±1% C : ±0.25pF
ECQ□:	Polystyrene Film Capacitor	1A : 10V 1C : 16V 1E : 25V 1V : 35V	D : ±0.5pF
ECQS:	Polystyrene Film Capacitor	1H : 50V 1J : 63V 2A : 100V	
ECQS:	Polypropylene Film Capacitor		
ECQV:	T.F Capacitor		
ECU□: RCU□:	Chip Capacitor		
ECBT:	Cylindrical Ceramic Capacitor		

※ Capacity are in microfarads (μF) unless specified otherwise, P=Pico-farads.
※ Resistance are in ohms (Ω), unless specified otherwise, 1K=1,000Ω, 1M=1,000KΩ

Note:

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  [ZI]...For Italy and Finland.
  [ZG]...For F.R. Germany.

Ref. No.	Part No.
RESISTORS	
R1	ERDS2TJ220T
R2, R3	ERDS2TJ104
R4, R5	ERDS2TJ104
R6	ERDS2TJ100
R7	ERDS2TJ101
R8	ERDS2TJ474
R9	ERDS2TJ101
R10	ERDS2TJ824
R11	ERDS2TJ331
R12	ERDS2TJ104
R13	ERDS2TJ470
R14	ERDS2TJ474
R15	ERDS2TJ222
(ZF)	
R15	ERDS2TJ392
(Z, ZE, ZG)	
(ZI)	
R17	ERDS2TJ561
R18	ERDS2TJ332
R19	ERDS2TJ822
(Z, ZE, ZG)	
(ZI)	
R20, R21	ERDS2TJ470
R22	ERDS2TJ222
R23	ERDS2TJ561
R24	ERDS2TJ821
R25	ERDS2TJ822
R26	ERDS2TJ102
R27	ERDS2TJ104
R28	ERDS2TJ472
R29, R30	ERDS2TJ103
R31	ERDS2TJ470
R32	ERDS2TJ472
R33	ERDS2TJ153
R34, R35	ERDS2TJ472
R37	ERDS2TJ222
(Z, ZE, ZF)	
R38	RRSA36J182TH
(Z, ZE, ZF)	
R38	RRSA50J471TH
(ZG, ZI)	
R101	ERDS2TJ682
R102	ERDS2TJ473
R103	ERDS2TJ153
R104	ERDS2TJ220T
R105	ERDS2TJ823
R106	ERDS2TJ392
R107	ERDS2TJ103
R108	ERDS2TJ272
R109	ERDS2TJ104
R110	ERDS2TJ123
(ZF)	
R110	ERDS2TJ472
(Z, ZE, ZG)	
(ZI)	
R111	ERDS2TJ104
R112	ERDS2TJ562
R113	ERDS2TJ153
R114	ERDS2TJ123
R115	ERDS2TJ223
R116	ERDS2TJ182
R117	ERDS2TJ221
R118	ERDS2TJ471
R119, R120	ERDS2TJ472
R121	ERDS2TJ822
R122	ERDS2TJ103
R123	ERDS2TJ471
R124	ERDS2TJ2R2
R125	ERDS2TJ121
R201	ERDS2TJ682
R202	ERDS2TJ473
R203	ERDS2TJ153
R204	ERDS2TJ220T
R205	ERDS2TJ823
R206	ERDS2TJ392
R207	ERDS2TJ103
R208	ERDS2TJ272
R209	ERDS2TJ104
R210	ERDS2TJ123
(ZF)	
R210	ERDS2TJ472
(Z, ZE, ZG)	
(ZI)	
R211	ERDS2TJ104
R212	ERDS2TJ562
R213	ERDS2TJ153
R214	ERDS2TJ123
R215	ERDS2TJ223
R216	ERDS2TJ182
R217	ERDS2TJ221
R218	ERDS2TJ471
R219, R220	ERDS2TJ472
R221	ERDS2TJ822
R222	ERDS2TJ103
R223	ERDS2TJ471
R224	ERDS2TJ2R2
R225	ERDS2TJ121
R302	ERDS2TJ222
R303	ERDS2TJ224
R304	ERDS2TJ680
R305	ERDS2TJ392
R307	ERDS2TJ330
R308	ERDS2TJ152
R309	ERDS2TJ824
R310	ERDS2TJ472
R311	ERDS2TJ103
R313	ERDS2TJ221
R314	ERDS2TJ101
R315	ERDS2TJ6R8T
R316	ERDS2TJ104
R317	ERDS2TJ223
R318	ERDS2TJ681
R319	ERDS2TJ105
R320	ERDS2TJ472
R321	ERDS2TJ101
R322	ERDS2TJ153
R323	ERDS2TJ103
R324	ERDS2TJ822
R325	ERDS2TJ102
R326	ERDS2TJ105
R327, R328	ERDS2TJ222
R330	ERDS2TJ103
R332	ERDS2TJ471
R333, R334	ERDS2TJ181
R335	ERDS2TJ331
R336	ERG3SJ220H
R337	ERDS2TJ271
R338	ERX1ANJPR47

Ref. No.	Part No.
R339	ERDS2TJ153
R340	ERDS2TJ150T
R341	ERDS2TJ331
R343	ERDS2TJ472
R344	ERDS2TJ222
R345	ERDS2TJ103
R346	ERX1ANJ1R0
R347, R348	ERDS2TJ473
R349	ERDS2TJ104
CAPACITORS	
C1	RCBS1H102KB
C2	ECCT1H100KC
C3	RCBS1H102KB
C4	RCBS1H3R9KC
C5	ECCD1H331K
C6	ECFT1C223MD
C7	RCBS1H102KB
C8	ECEA50ZR47E
C9	ECCT1H180KC
C10 (Z, ZE, ZF)	ECCT1H221JU
C10 (ZG, ZI)	ECCT1H331KU
C11	ECCD1H470KC
C12 (ZG, ZI)	ECCT1H150KW
C13	RCBS1H102KB
C14	RCBS1H120JC
C15	ECCT1H120KC
C16	ECFT1C223MD
C17	ECKD1H103ZF
C18	ECEA50ZR47E
C19	ECEA1HU2R2
C20	ECFV1E473MD
C21, C22	ECFT1C223MD
C23	ECCD1H331K
C24	ECEA0JU221
C25	ECFT1C103MD
C26	ECFT1C223MD
C27	ECEA1CU220
C28	ECFT1C153MD
C29	ECEA1HU2R2
C30, C31	ECEA0JU101B
C32	RCBS1C103MYY
C33	ECQP2A102JZT
C34, C35	ECEA50ZR47E
C36	ECEA1HU2R2
C37	ECEA0JU330
C38	ECFT1C223MD
C39	ECCT1H150KC
C40	ECCT1H120KC
C42	ECCF1H070CC
C43	ECCT1H390KC
C44	ECCT1H100KC
C45	ECQP2A221JZ
C46	ECQP2A361JZ
C47	ECQP2A392JZ
C48	ECQP2A151JZ
C49	RCBS1H102KB
C51	ECEA1HU2R2
C52	ECEA1AU220
C53	RCBS1H3R9KC
C101	ECEA1HU010
C102	RCBC1H681KBY
C103	RCBS1H471KB
C104	ECEA0JU101B
C105	ECFD1C333KDY
C106	ECEA1HU010
C107	ECFD1C153KD
C108	ECEA1HU010
C109	RCBS1H471KB
C110	ECFD1C223KD
C111	ECEA0JU330
C112	ECEA1HU010
C114	ECKF1H102KB
C116	ECEA1HU010
C117	RCBS1H102KB
C118	ECEA1CU100
C119	ECEA1HUR33
C120	ECEA1HU010
C121	ECFV1E473MD
C122	ECEA1HUR33
C123	ECFT1C103MD
C124	ECEA1HU0R1
C125	RCBC1C332MXY
C126	ECFV1E473MD
C127	RCBS1H102KB
C128	ECFT1C223MD
C129	ECEA1HU010
C130	ECKF1H102KB
C131	ECEA1AU221
C132	RCBS1H100JC
C133	ECEA1EU101
C134	ECFV1E473MD
C135	ECEA1CSZ102
C136	ECFV1E683MD
C137	ECFT1C153MD
C139	ECEA1HU0R1
C201	ECEA1HU010
C202	RCBC1H681KBY
C203	RCBS1H471KB
C204	ECEA0JU101B
C205	ECFD1C333KDY
C206	ECEA1HU010
C207	ECFD1C153KD
C208	ECEA1HU010
C209	RCBS1H471KB
C210	ECFD1C223KD
C211	ECEA0JU330
C212	ECEA1HU010
C214	ECKF1H102KB
C216	ECEA1HU010
C217	RCBS1H102KB
C218	ECEA1CU100
C219	ECEA1HUR33
C220	ECEA1HU010
C221	ECFV1E473MD
C222	ECEA1HUR33
C223	ECFT1C103MD
C224	ECEA1HU0R1
C225	RCBC1C332MXY
C226	ECFV1E473MD
C227	RCBS1H102KB
C228	ECFT1C223MD
C229	ECEA1HU010
C230	RCBS1H102KB
C231	ECEA1AU221
C232	RCBS1H100JC
C233	ECEA1EU101
C234	ECFV1E473MD
C235	ECEA1CSZ102
C236	ECFV1E683MD
C237	ECFT1C153MD
C239, C301	ECEA1HU0R1
C302	ECQP2A471JZT
C303	ECEA1HU0R1
C304	ECKF1H102KB
C307	ECFT1C223MD
C308	ECEA1HU010
C309	ECCT1H181K
C310	ECQS2B272KZ
C311	ECEA1EU4R7
C312	ECEA1AU102
C313	ECEA0JU330
C314	ECEA1CV221SE
C315	ECFT1C223MD
C316	ECFT1C103MD
C317, C318	ECEA1CU100
C319	ECEA1CU100
C320	ECEA1AU101
C321	ECEA1AU471
C322	ECEA1CU330
C325	ECEA1AU221
C326	ECKD1H103ZF
C327	ECEA1EU222
C328, C329	ECKD1H103ZF
C330, C331	ECKD1H103ZF
C332	ECEA1EU221
C334	ECEA1EU471E
C336	ECEA1AU471
C337	ECEA1CU100
C338	ECEA0JU101B
C339	ECCD1H470KC
C340	ECKD1H103ZF
C341	ECEA1EF221
C342, C343	RCBS1H102KB
C344, C345	RCBS1H102KB
C346	RCBS1H102KB
C347, C348	ECFT1C153MD
C349	ECEA1EF101
C351, C352	RCBS1H102KB

ACCESSARY AND PACKING PARTS LIST

Notes:

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   [ZI]...For Italy and Finland.
   [ZG]...For F.R. Germany.

Ref. No.	Part No.	Description
PACKINGS		
P2	RPN9565ZA	PAD
P3	RPK2568ZA	CARTON BOX
P4	RPH597ZA	PROTECTION BAG
ACCESSORIES		

Ref. No.	Part No.	Description
A1	RQX5032ZA	INSTRUCTION MANUAL
A2 ⚠ (Z, ZF, ZG)	RJA20Z	POWER CORD
A2 ⚠ (ZE)	RJA86Z	POWER CORD
(ZI)		

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